REMARKS/ARGUMENTS

Claims

The Examiner rejected claims 1-34. By this amendment, claims 1, 4-5, 20, and 23-24 have been amended. Therefore claims 1-34 remain pending in the application.

Claim Rejections – 35 USC §102

Claims 1-11, 15, 17-18, 20-29 and 33 were rejected under 35 U.S.C. 102(e) as being anticipated by Humpleman et al. (USPN: 6,288,716 B1) (hereinafter referred to as "Humpleman"). The rejection is respectfully traversed.

The Examiner rejected as not persuasive the Applicant's previous argument that Humpleman does not disclose the step in the present claim 1 including "the sensing device, when placed in an operative position relative to the control interface, generating the indicating data using at least some of the coded data." The Examiner asserted that Fig. 11 of Humpleman and its associated text teaches that step. The Examiner appears to equate either one of the two home devices (150) of Humpleman, or their associated remote controls, with the sensing device of claim 1. Claim 1 has therefore been amended to clarify that the "coded data" is printed on the control interface and that the sensing device of the present invention is, "when placed in an operative position relative to the control interface, reading at least some of the coded data on the control interface, and generating the indicating data using at least some of the read coded data." Humpleman does not disclose an optical sensing device that reads coded data printed on a control interface.

In order to further clarify the plain meaning of amended claim 1, the Examiner's attention is drawn to Fig. 8 of the present application that shows a sensing device (101) reading coded data on a printed page (500) and then sending indicating data (E1) to a device (600). That process is not analogous to the process taught by Humpleman that uses a remote control to click on a device button (712) on a GUI of a DTV (202) to communicate with a home device (204). The Applicant appreciates that limitations from the specification are not read into the claims; however the claims are construed in light of the specification, of which they are a part. See Slimfold Mfg. Co. v. Kinkead Indus., Inc., 810 F.2d 1113, 1116, 1 USPQ2d 1563, 1566 (Fed. Cir. 1987).

Neither the remote control of Humpleman nor the DTV (202) of Humpleman uses an optical sensor to read coded data that is printed on a control surface. The Merriam-Webster online dictionary (http://www.m-w.com/cgi-bin/dictionary) defines "read" as, in one sense: "to acquire (information) from storage; *especially* : to sense the meaning of (data) in recorded and coded form -- used of a computer or data processor." Guided by that definition, there is nothing disclosed in Humpleman that teaches reading coded data with an optical sensor. In the same Merrian-Webster Online Dictionary, the word optical is defined in one sense as "involving the use of light-sensitive devices to acquire information for a computer <*optical* character recognition>."

The Examiner cites Humpleman as disclosing, at col. 17, lines 63-67, a method of "receiving, in the computer system, indicating data from a sensing device regarding the identity of the control interface and a position of the sensing device relative to the control interface, the sensing device, when placed in an operative position relative to the control interface, generating the indicating data using at least some of the coded data" (from amended claim 1 of the present application). However, the above step from claim 1 of the present application is neither disclosed nor suggested in Humpleman.

At col. 17, lines 63-67, Humpleman discloses a session manager that includes a device button 712. The session manager of Humpleman requires a Graphical User Interface (GUI) in a physical device such as a cathode ray tube (CRT) or liquid crystal display (LCD) (see, e.g., FIG. 11) to provide a primary interface between a user and a home network (see, e.g., col. 14, 27-28). The session manager and device button 712 of Humpleman therefore do not correspond with the control interface including coded data and the sensor device as recited in claim 1 of the present application.

By the present amendment, independent claims 1 and 20 have been amended to clarify that the control interface of the present invention includes coded data indicative of a plurality of reference points. Support for these amendments is found in the specification at page 12, lines 14-25:

> "...the preferred form of the netpage system employs a computer interface in the form of a mapped surface, that is, a physical surface which contains references to a map of the surface maintained in a computer system. The map references can be queried by an appropriate sensing device. Depending upon the specific implementation, the map references may be encoded visibly or invisibly, and defined in such a way that a local query on the mapped surface yields an unambiguous map reference both within the map and among different maps. The computer system can contain information about features on the mapped surface, and such information can be retrieved based on map references supplied by a sensing device used with the mapped surface. The information thus retrieved can take the form of actions which are initiated by the computer system on behalf of the operator in response to the operator's interaction with the surface features."

Claims 1 and 20 have further been amended to state that "the sensing device... sensesgenerates the indicating data...." The purpose of that amendment is to clarify that the indicating data is derived from the coded data. Support for that amendment is found in the specification at page 21, lines 25-31:

> "A location-indicating tag contains a tag ID which, when translated through the tag map associated with the tagged region, yields a unique tag location within the region. The tag-relative location of the pen is added to this tag location to yield the location of the pen within the region. This in turn is used to determine the location of the pen relative to a user interface element in the page description associated with the region. Not only is the user interface element itself identified, but a location relative to the user interface element is identified."

That paragraph describes an embodiment of the present invention where the coded data of claim 1 is identified as a "tag" and where the sensing device of claim 1 is identified as a "pen".

The sensing device of amended claims 1 and 20 thus generates indicating data by first determining "a position of the sensing device relative to the control interface" (see amended claims 1 and 20). The position of the sensing device is determined using the plurality of reference points as described in the amended claims 1 and 20. Nowhere does Humpleman disclose or suggest generating indicating data by first determining a position of a sensing device relative to an interface. Rather, Humpleman discloses the use of a Graphical User Interface (GUI) to allow users to command and control home devices (see, e.g., col. 14, lines 30-31). Humpleman discloses user interaction with a GUI through standard internet browser technology (see, e.g., Humpleman at col. 4, lines 25-28). Humpleman clearly does not disclose interacting with a GUI through the use of an optical sensing device that determines its position relative to a control interface.

Similarly, the sensing device of independent claims 4-5 and 23-24 sense coded data that determines either movement of the sensing device relative to the control interface or the identity of the control interface. Again, Humpleman does not disclose or suggest such relationships between a sensing device and a control interface.

Further, the Applicant respectfully submits that the Examiner's remaining rejections based on Humpleman, of the claims depending from the above independent claims, are moot in light of the current amendments to the independent claims and the above arguments.

Claim Rejections – 35 USC §103

Claims 12-13, 19, 30-31 and 34 were rejected under 35 U.S.C. 103(a) as being unpatentable over Humpleman in view of Redford et al. (USPN: 5,839,905) (hereinafter Redford). The rejection is respectfully traversed.

The Examiner cites Humpleman in view of Redford as disclosing the limitation of printing a control interface on demand by referring to the printed publications of Redford that include printed content and one or more buttons connected to a remote control circuitry (col. 2, lines 46-55). However, the Applicant respectfully asserts that the printed content and one or more buttons of Redford are very different from the printed control interface of the present claims. The printed text of Redford is plain printed text and does not include features resembling or analogous to the coded data of the present claims. Further, the buttons of Redford are actual physical buttons connected to remote control circuitry (see Redford Fig. 1A, element 12) that are also not analogous to the coded data of the present invention. See also, e.g., Redford at col. 8, lines 6-8: "A storage media remote control includes buttons physically attached to a housing having a shape and size capable of removably holding a storage media"; also at col. 10, lines 35-37: "Physical attachment 14A and visual association 14B can be implemented by gluing a button to a page adjacent to associated printed text and/or graphic content."

The printed content of Redford does not include any coded data that is read by an optical sensing device. The printed control interfaces of the present claims are thus very different from the plain printed text that is disclosed in Redford and that accompany the physical buttons of Redford. The control interfaces of the present claims include coded data, such as position data, that can be used to identify parameters such as the playback controls of a device. See, for example, the present specification at page 24, lines 16-19: "*A netpage can contain printed control buttons in the style of a remote control unit, or printed playback control buttons associated with individual programs or movies. Playback controls can include play, pause, stop, start and end. An iconic image of the program or movie can itself act as a play button.*" Neither the printed text and physical buttons of Redford nor the session manager of Humpleman disclose or suggest such coded data.

Conclusion

Independent claims 1 and 20 have been amended to clarify that the control interfaces as recited in the claims include a plurality of reference points that may be used to first identify a position of a sensing device relative to the control interface, and then to generate indicating data using the known position of the sensing device. The remaining independent claims of the present invention define sensing coded data that determines either movement of a sensing device relative to a control interface or the identity of a control interface. The above relationships between a control interface and a sensing device are neither disclosed nor suggested in any of the references cited by the Examiner. Accordingly, it is submitted that the application is now in condition for allowance. Reconsideration and allowance of the application is courteously solicited.

Very respectfully,

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